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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/680,446	10/07/2003	Andrew R. Poulter	RM456b	4480

23996 7590 08/25/2005

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EXAMINER

SWENSON, BRIAN L

ART UNIT	PAPER NUMBER
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3618

DATE MAILED: 08/25/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/680,446

Applicant(s)

POULTER, ANDREW R.

Examiner

Brian Swenson

Art Unit

3618

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 July 2005.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-31 is/are pending in the application.
- 4a) Of the above claim(s) 6-16, 18, 19, 23-28, 30 and 31 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-5, 17, 20-22 and 29 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 07 October 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 4/8/04.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Election/Restrictions

1. Applicant's election of Species I, Figures 2-10, claims 1-5, 17, 20-22 and 29 in the reply filed on 22 July 2005 is acknowledged. Because applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election without traverse (MPEP § 818.03(a)).

Specification

2. The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-5, 17, 20-22 and 29 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6,662,889 issued to De Fazio et al. in view of U.S. Patent No. 4,993,912 issued to King et al.

De Fazio et al. teaches in Figures 1-15C and respective portions of the specification of: a robot (abstract, line 3) adapted to climb stairs (Drawing sheet 14 of 17) and obstacles, the robot comprising: a left body section (see where reference

numeral 104 is located Figure 8); a right body section (see where reference numeral 102 is located Figure 8); said left and right body sections forming a robot body; a pivotable tail boom (802; Figure 8) mounted between the left and the right body section; a plurality of support legs (see elements 114-118 and 122-126; Figure 8) affixed to each body section, wherein the robot body is supported above a ground surface; a motor (806, 807 and 810) housed in the robot body; wherein the motor powers (807; See at least Col. 11, lines 41-48) the tail boom downward in an obstacle climbing mode against a ground surface (Col. 11, lines 1-7)

De Fazio et al. discloses the claimed invention except for teaching of flipping the body of the robot over as the robot ascends/descends an obstacle.

King et al. teach of a body section that includes elements that flip over an obstacle in a climbing mode, see rear left and right body sections (62 and 64) and Figure 2 inter connected by a central axle (92), which shows the body sections in a flipping mode.

It would have been obvious to one having ordinary skill in the art at the time of invention to provide the flipping body structure taught by King et al. in the invention taught by De Fazio et al. One would be motivated to provide the flipping body structure to provide the details specified by De Fazio et al.'s objective of providing a "flipper" structure in combination with the tail boom structure (Col. 11, lines 14-15).

In regard to claims 2 and 20; De Fazio et al. shows in Figure 10A, there are two motors (806) for powering the left and right side of the robot. De Fazio states that the robot can contain 2 axles, which would yield a front and rear wheel configuration (See

Col. 8, line 39 and Col. 11 lines 28-29). The housing (132) shown in Figure 2 is taken to be of a clam shell design.

In regards to claim 3, the two motors (806) allow the vehicle to spin or turn in place; which is inherently accomplished by varying their respective speeds (see at least Col. 7, lines 1-5).

In regards to claims 17 and 22, De Fazio et al. does not teach of a transmitter for sending and receiving control signals. King et al. show in Figure 7 a camera sensor (54) and a transmitter (115) for sending and receiving control signals. It would have been obvious to one having ordinary skill in the art at the time of invention provide a transmitter and video, as taught by King et al. in the invention taught by De Fazio et al. to allow the robot to be controlled from a remote location.

In regards to claim 21, De Fazio et al. as modified by King et al. does not state if there is a lock for fixing the two housing relative to each other. It would have been obvious to one having ordinary skill in the art at the time of invention to provide a lock for fixing the two housings together, preventing actuation of the flipping mode. One would be motivated to preventing flipping when the robot is operated on flat ground.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

U.S. Patent No. 3,283,839 issued to Brown et al. teaches of a stair climbing chair.

U.S. Patent No. 6,062,600 issued to Kamen et al. teaches of a mechanism for preventing tipping of a stair climbing mechanism.

U.S. Patent No. 6,341,784 issued to Carstens teaches of a climbing device.

U.S. Patent No. 5,186,270 issued to West teaches of a unidirectional vehicle.

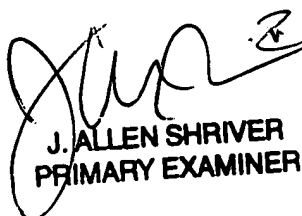
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brian Swenson whose telephone number is (571) 272-6699. The examiner can normally be reached on M-F 9-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Christopher Ellis can be reached on (571) 272-6914. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

BIS 8/19-05
bls

Brian Swenson
Examiner
Art Unit 3618


J. ALLEN SHRIVER
PRIMARY EXAMINER